

Application Serial No. 09/746,453

1. (Currently Amended) A method for discovering from a database an object which is confusingly similar with a known object comprising:

- a) searching a database for target objects;
- b) providing a known object comprising an image; and
- c) determining if any target object in the database is confusingly

similar with the known object by using computer vision software that compares a digital model in computer memory comprising a mathematical template associated with pixels that are based on a full-size of the known object with a matrix of numbers derived from pixels associated with at least one of a full-size of the target object, a scaled version of the entire target object, and a portion of the target object, the full-size of the known object comprising a complete area of pixels of the known object.

2. (Previously Presented) The method of Claim 1 additionally comprising duplicating the target objects from the database to produce duplicated target objects; and storing the duplicated target objects to produce stored duplicated target objects.

3. (Previously Presented) The method of Claim 2 additionally comprising determining the degree of similarity of any stored duplicated target object with the known object.

4. (Original) The method of Claim 1 wherein said objects are selected from the group consisting of graphic images, videos, audio sounds, and mixtures thereof.

5. (Original) The method of Claim 1 wherein each of said objects is an intellectual property selected from the group consisting of logos, trademarks, service marks, and mixtures thereof.

6. (Original) The method of Claim 1 wherein said database comprises the Worldwide Internet.

7. (Original) The method of Claim 1 wherein said searching a database comprises searching the database with a web crawler.

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8. (Original) The method of Claim 7 wherein said web crawler sweeps the database including the worldwide Internet by following hyperlinks contained in web site elements.

9. (Original) The method of Claim 7 wherein said web crawler sweeps web sites that are not linked.

10. (Previously Presented) The method of Claim 7 further comprising duplicating URLs and hyperlinks for the target objects.

11. (Previously Presented) The method of Claim 10 additionally comprising storing URLs for the target objects.

12. (Previously Presented) The method of Claim 1 wherein said determining if any target object is confusingly similar with the known object comprises determining if the target object is one or more of a video, an image, and an audio sound.

13. (Previously Presented) The method of Claim 1 where said determining if any target object is confusingly similar with the known object comprises determining if all the necessary metadata is available for any of the stored duplicated target objects.

14. (Previously Presented) The method of Claim 1 wherein said determining if any target object is confusingly similar with the known object comprises developing necessary metadata for any of the target objects.

15. (Previously Presented) The method of Claim 1 wherein said determining if any target object is confusingly similar with the known object comprises performing one or more of the following process steps:

- a) conducting an optical character recognition analysis on the target object;
- b) conducting a facial analysis on the target object;
- c) conducting a watermark analysis on the target object;
- d) conducting a signature analysis on the target object; and
- e) conducting an object similarity analysis on the target object.

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16. (Currently Amended) A computer-readable storage medium storing program code for causing a processing system to perform the steps of:

receiving a known object comprising at least one of a logo, a trademark, a service mark, and a combination thereof;

searching a database for objects;

duplicating the objects from the database to produce duplicated objects;

storing the duplicated objects to produce stored duplicated objects; and

determining if any stored duplicated object is confusingly similar with the known object by using computer vision software that compare[[ing]]es a digital model in computer memory comprising a mathematical template associated with pixels of the known object with a matrix of numbers derived from pixels associated with the duplicated object if the known object is formatted as an image and wherein the model is based on a full-size of the known object, the full-size of the known object comprising a complete area of pixels of the known object, and by comparing characters of the known object with the duplicated object if the known object comprises text.

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17. (Currently Amended) A system for discovering from a database an object which is confusingly similar to a known object comprising:

means for searching a database for objects;

means for duplicating the objects from the database to produce duplicated objects;

means for storing the duplicated objects to produce stored duplicated objects; and

means for determining if any stored duplicated object is confusingly similar with a known object comprising a face by running computer vision software that compare[[ing]]es a digital model in computer memory comprising a mathematical template associated with pixels that are based on the normal size of the known object against at least one of a normal size of the duplicated object, a scaled version of the entire duplicated object, and a portion of the duplicated object, each duplicated object comprising a matrix of numbers derived from pixels associated with the duplicated object, the normal size of the known object comprising a complete area of pixels of the known object.

18. (Original) The system of Claim 17 additionally comprising means for determining the degree of similarity of any stored object with the known object.

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19. (Currently Amended) A system for discovering from a database an object which is confusingly similar with a known object comprising:

a search engine for searching a database for objects;

a duplicator coupled to the search engine for duplicating the objects from the database to produce duplicated objects;

a store coupled to the duplicator for storing duplicated objects to produce stored duplicated objects; and

determining means, coupled to the store, for determining if any stored duplicated objects is confusingly similar with a known object that comprises an image, including computer vision software that [[for]] compare[[ing]]es a model in computer memory comprising a mathematical template associated with pixels that are based on a full-size of the known object with a matrix of numbers derived from pixels associated with at least one of a full-size of the duplicated object, a scaled version of the entire duplicated object, and a portion of the duplicated object, the full-size of the known object comprising a complete area of pixels of the known object.

20. (Original) The system of Claim 19 additionally comprising determining the degree of similarity of any stored duplicated object with the known object.

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21. (Currently Amended) A computer-implemented method comprising:
searching an Internet database for objects with a search engine;
duplicating the objects from the database with a duplicator to produce
duplicated objects;
coupling a store to the duplicator for storing the duplicated objects;
accessing the store that stores duplicated objects from the Internet
database; and
determining if any of the duplicated objects stored in the store are similar
with a known object by running computer vision software that compares a digital
model in computer memory comprising a mathematical template associated with pixels
that are based on a full-size of the known object with a matrix of numbers derived from
pixels associated with at least one of a full-size of the duplicated object, a scaled version
of the duplicated object, and a portion of the duplicated object, the full-size of the known
object comprising a complete area of pixels of the known object.

22. (Currently Amended) A system operating in computer networks having a
service comprising determining if any stored duplicated objects each comprising a matrix
of numbers derived from pixels and which were duplicated from a database is
confusingly similar with a digital model in computer memory by executing computer
vision software that compares the digital model to each duplicated object, the digital
model comprising a mathematical template associated with pixels that are based on a
complete size of a known object of intellectual property that consists of at least one of a
logo, trademark, service mark, and a combination thereof, the complete size of the known
object of intellectual property comprising a complete area of pixels of the known object.

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23. (Currently Amended) A method for determining a degree of similarity between a known object and an object duplicated from a database comprising:

duplicating an object from a database to produce a duplicated object;

analyzing the content of the duplicated object to produce a matrix of numbers derived from pixels based on the duplicated object;

producing a digital model in computer memory comprising a mathematical template associated with pixels that are from a known object that is based on a full-size of the known object, the full-size of the known object comprising a complete area of pixels of the known object; and

comparing with computer vision software the digital model template of the known object with at least one of all of the matrix of numbers, a portion of the matrix of numbers, and a scaled version of the matrix of numbers to determine the degree of similarity between the duplicated object and the known object.

24. (Original) The method of Claim 23 additionally comprising providing a threshold degree of similarity to set a standard for confusingly similarity between the known object and the duplicated object.

25. (Original) The method of Claim 24 additionally comprising displaying the degree of similarity if the degree of similarity is at least equal to the threshold degree of similarity.

26. (Original) The method of Claim 25 wherein said analyzing the content of the duplicated object to produce a matrix of numbers comprises assigning a number for each pixel in the duplicated object.

27. (Original) The method of Claim 26 wherein said duplicated object is a frame of video.

28. (Original) The method of Claim 26 wherein said duplicated object is a logo.

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29. (Original) The method of Claim 1 additionally comprising determining what region of the object the known object is located.

30. (Original) The system of Claim 19 where said search engine include a web crawler.

31. (Original) The system of Claim 19 wherein said determining means comprises a comparison engine.

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